Tom Bennett Art and Environmental Science Contest 2008

Getting Along in the Chaparral

Let's Go Walking in the Chaparral

Today I am going for a walk in the chaparral. Would you come along with me?

Look, something is on the trail. They are acorns. Acorns are the seeds of oak trees. This tree here is called a California scrub oak. Many animals eat the acorns when they ripen in the fall. Maybe we'll see some of them during our walk.

This strange brown ball on the oak branch is called a gall. A gall wasp stings the branch and lays her eggs inside the branch. The tree grows the gall around the eggs. Later on, the eggs hatch and the wasp larvae drill their way out. You can see the little drilled holes in this gall. The larvae have already left.

The Serrano and Cahuilla Indian people who lived here in the past also ate acorns. They had to shell them and grind them into flour. Then they washed the bitter taste from the flour in a basket.

I hear a bird. It sounds like a ping-pong ball bouncing faster and faster. The bird making that call is a wrentit. It is the size of a robin and has light and dark brown feathers. It picks insects off the branches to eat.

See the reddish bark on this shrub? It is a manzanita. These tiny yellow flowers are replaced by bright red berries in the fall. Black bears, coyotes and gray foxes love to eat manzanita berries.

In the past, the Serrano and Cahuilla Indian people ate the manzanita berries, too. Sometimes they dried them so they could eat later. Some Indian people still live in this area, but they live like everyone else, buying their food and other things they need in stores instead of gathering from nature.

I like to look out over the chaparral from this hillside. All the shrubs look like a big green blanket. If this trail wasn't here, I couldn't walk through the chaparral because the shrubs grow so close together.

All those shrubs up the hillside with the bright white flowers are called chamise. They are the most common shrub in the chaparral. That scent we smell is the chamise. Mmm. It smells wonderful and fresh.

In some places, chamise grows thick and solid with no other shrubs growing nearby. In other places, chamise is mixed with shrubs like manzanita or scrub

oak. The solid stands of chamise, like this one, are so beautiful when they flower in the spring.

Under that bush is a big pile of sticks. What can it be? It is the nest of a big-eared woodrat. The nest is as tall as me. The woodrat's nest has several rooms inside. It also has balconies used as bathrooms.

Many other animals live in and around the big-eared woodrat's nest, including spiders, ants, and the California mouse. Ensatina salamanders need to live where there is moisture. Sometimes they live in the lower level of the woodrat's nest. Chaparral scorpions and western rattlesnakes might find a cozy corner there, too.

Big-eared woodrats eat acorns and oak leaves, and many kinds of twigs, leaves and berries. They get water in summer by eating prickly-pear cactus. Do you think the cactus spines hurt the woodrats?

Woodrats like to pick up shiny objects and bring them home. I can see a broken bottle, a nail, a piece of foil, and a bottle cap in this nest.

This shrub where the woodrat has built its nest is called a coffeeberry. See how thick the leaves are? The woodrats love to eat its bright red berries in the fall. The Serrano and Cahuilla Indian people made a drink from the coffeeberry berries. They hunted woodrats for food as well.

This area up ahead had a fire last fall. You can see the blackened stems of the burnt shrubs. But look! There are new green sprouts growing near the ground of that burnt shrub. That's how many of these bushes survive the fire.

And here, in this open patch of ground, you can see flowers called fire-followers. The seeds germinate after a fire, and the plants make showy flower displays. I only see them in the spring after a fire.

This one is golden yarrow. This purple one is phacelia, with its curled flower heads. And over there is the tiny baby blue eyes. Aren't the fire-followers pretty?

Fire is very common in the chaparral, so the plants have adaptations that help them survive fire. On this greenleaf manzanita, you can see a branch that was blackened by fire a few years ago. The shrub re-sprouted from a crown that sits below the surface of the ground. Many animals eat these tender green sprouts.

All this talk of fire is making me thirsty. Let's have a drink of water. I sure am glad I wore this hat today. The sun is getting very warm.

Look up there. That's a red-tailed hawk, searching for something to eat. Red-tailed hawks look for prey in open areas like this, where they can see the ground. Maybe it will find a mouse or a pocket gopher.

There on the top of that tall California scrub oak is a scrub jay. See the blue and gray feathers? Scrub jays often play together, or chase crows or mockingbirds. They eat acorns and other seeds, insects, lizards, and eggs from the nests of other birds. That bird sure is noisy!

Let's sit on these rocks and rest a while. Be careful not to brush up against those shrubs. There may be a tick waiting for an animal to walk by so it can hitch a ride and eat some blood. Ticks are not insects. They are arachnids, and have eight legs, just like spiders. If we get a tick on us, we just have to brush it off.

Quiet! Here comes a bevy of California quail. Oh look! There are some baby quail, too. There they go, pecking as they walk along the ground, looking for seeds and tiny plants to eat.

I see a western fence lizard on that rock over there. It looks just like the ones I see in the rock piles at my school. Lizards sit in the sun to warm up. When they get too hot, they move to the shade. Hold still, so we don't scare it away.

What's that scratching noise coming from under that shrub? It's a pair of California towhees. They scratch at the ground, looking for insects, grubs and worms. They sure are noisy!

Ready to walk again? There are still many things to see in the chaparral.

Feel the leaves of this mountain mahogany. They feel waxy. In the fall, the seed grow a furry, curled tail. The wind picks up these seeds and blows them to a new place, where they may germinate and grow.

See how the leaves of this shrub look a little bit like a taco? This is called sugar bush. It gets bright red berries in the fall. Some similar shrubs are the lemonade berry and the laurel sumac. Let's pick up this leaf from the ground to compare to the other shrubs when we find them.

I think a Cooper's hawk has been here! See this pile of small grey feathers on the ground? They look like the feathers of a bushtit. Cooper's hawks fly among the shrubs, snatching birds in the air. They pluck out all the feathers before they eat.

Look at this. It is the cone of a knobcone pine tree. Feel how hard the cone is. The seeds are forming inside the cone. When a fire burns here, the cone will open and the seeds will burst out. That's how new knobcone pine trees grow in the chaparral.

Stop! There goes a gopher snake, slithering across the trail. We'll just watch it go by. It is not poisonous. As long as we leave it alone, it won't need to defend itself by biting. Let's see how long it is.

Let's sit under coast live oak. Ah, this shade feels good. Oh! Watch out! Don't lean back! That's a plant called poison oak. If you rub against the leaves you might get a painful rash. Let's see if we can find a different shady spot to rest in.

See those tall spikes out in the open area there? Those are chaparral yucca. They live about 12 to 15 years. Then one spring, they produce that spike. The spike grows flowers, and yucca moths pollinate the flowers. Hundreds of flat, black seeds form inside hard pods. They flower only once, and then the plant dies.

The white chaparral yucca flowers seem to glow in the sunlight, don't you agree? The Serrano and Cahuilla Indians ate the flowers and the spike, as well as the seeds of the yucca. They made twine from the fiber in the leaves, and soap from the root. That's a pretty useful plant!

Well, that's the chaparral. Spring is a great time to visit. We saw many plants blooming, and some spring-time baby birds. If we come back in the fall, we'll see more berries on the shrubs. Maybe it will be a little cooler then.

Won't you come back with me again sometime?